SIEMENS

MAMMOMAT 1000/3000 Nova

SP

Maintenance Protocol

System

MAMMOMAT 1000/3000 Nova

Customer:	
Address:	
Department:	
Room:	
Contact person:	
Telephone:	
Cust. specific no.:	
Cust. no.:	
Date.:	

The instructions SPB7-230.101.02.05.02 are required for this protocol

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English
Doc. Gen. Date: 02.06

SIEMENS Office:	
Address:	
Region:	
Country:	
Contact person:	
Tel.:	
CSE in charge:	
Tel.:	

Remarks Regarding the Protocol:

The protocol is valid as proof of quality for **one** check that must be performed on the system / component in one year.

The check must be performed in the specified intervals.

The results of the check are entered in this protocol.

The chapter numbers in front of the checkpoints indicate the corresponding chapters in the particular instructions (see cover page).

The protocol must be completely filled out by the Customer Service Engineer, i.e.:

- All boxes must be filled out. If a box does not apply to the system or if no entry needs to be made, check the “n.a.“ box.
- Enter the customer number (Cust. No.:) and the date of the check in the header of each page so that each page can be allocated to a customer and to a check date.
- If there are complaints, the IVKs for the component about which a complaint has been made as well as the type of complaint must be entered in the “Open Points“ table provided for this. Correction of these open points also must be documented in this table with the date and a signature. If there are no open points, check “No“ and document this with the date and a signature.
- If movable components (also test phantoms that are part of the system) that can be used in different systems are used for the check, they must be entered in the “Movable Components“ table provided for this.
- The measurement values for the measurements that must be performed during the check must also be entered in the open spaces / tables provided for them.
- After completing the check, Page 3 of this protocol must be filled out and signed.

Further Processing and Archiving of the Protocol

The protocol is a document and thus must be archived. After completing the test, it must be filed in the corresponding register in the “System Owner Manual“ binder. If needed, a copy can be handed to the customer.

System:	
Serial No.:	
Software Version:	
Number of the Service Contract:	
Type of Maintenance:	

Evaluating the Condition of the System / Component

The system has no deficiencies. The image quality test resulted in no differences from required reference values.	☐
The system / component has slight deficiencies that have no affect on continued operation of the system. However they should be corrected preventively. The image quality test resulted in no differences from required reference values.	☐
The system / component has serious deficiencies. For safety reasons, continued operation of the system is permitted only after successfully correcting the deficiencies.	☐

After completing all work steps, an evaluation was performed.

Signature: _____

Date: Name:

The operator or a person assigned for this has taken note of this evaluation.

(if national regulations require this)

Signature: _____

Date: Name:

Explanation of Abbreviations in the Protocol

Abbrev.	Explanation		Abbrev.	Explanation
SI	Safety Inspection		PMF	Preventive Maintenance, Operating Value Check, Function Check
SIE	Electrical Safety Inspection		Q	System Quality, Image Quality
SIM	Mechanical Safety Inspection		QIQ	Image Quality
PM	Preventive Maintenance		QSQ	System Quality Check
PMP	Periodic Preventive Maintenance		SW	Software Maintenance
PMA	Preventive Maintenance Adjustments		CSE	Customer Service Engineer

Additional activities performed

Only activities that are not described in the instructions for the system / component need to be listed.

	Date:		
Additional activities performed:	OK	not OK	n.a.
	☐	☐	☐
	☐	☐	☐

Open Points:

Yes: ☐ No: ☐ Signature: _____

Date: Name:

If “Yes“, enter the component with the IVK and the open point (only the number) in the table. After completing maintenance, record this in the table.

IVK	Component	Open Points	Completed	
			Date	Signature

Measuring Devices queried electronically:

Yes: ☐ No: ☐ Signature: _____

Date: Name:

If the measurement devices are queried electronically, for example with a Scout Mobile Device, entry of the measuring devices in the table can be skipped.

Measuring Devices	Type	Serial No.	Date Used	Next Calibration Due

Movable Components:

Yes: ☐ No: ☐ Signature: _____

Date: Name:

If “Yes“, enter the movable component with which the check was performed along with the with the Serial No. in the table.

Movable components (also test phantoms that are part of the system) are parts that can be used on different systems).

Component	Serial No.

OK not OK | n.a.

1 General information

1.5 Text emphasis

2 System

2.1 Checks

		OK	not OK	n.a.
PMP	Radiation protection	☐	☐	☐
SIM	Swivel arm/PPS tube attachment	☐	☐	☐
SIM	Basic table	☐	☐	☐
SIM	Flying wing (MAMMOMAT 3000 Nova only)	☐	☐	☐
SIM	Level	☐	☐	☐
PMP	Face shield and compression plate	☐	☐	☐

2.2 Preparations

SIE	Cables	☐	☐	☐

3 Column stand

3.1 Checks

SIM	Steel ropes	☐	☐	☐
PMA	Oil and grease	☐	☐	☐
SIE	Limit switches	☐	☐	☐
PMF	Vertical travel	☐	☐	☐
SIM	Safety catch and rotation safety catch	☐	☐	☐
SIM	Ball bearings	☐	☐	☐
SIM	Mounting for the X-ray tube	☐	☐	☐
PMA	Grease the grid spindle	☐	☐	☐

4 Compression and system movements

4.1 Testing the "Compression" function

4.1.1 Switching off

PMF	Presetting	☐	☐	☐
SIE	Max. value switch off	☐	☐	☐
PMF	OPCOMP	☐	☐	☐

4.2 Testing the "Decompression" function

4.2.1 Switching off

SIE	Safety switch	☐	☐	☐

4.2.2 Travel

PMF	Compression travel	☐	☐	☐

4.2.3 Applying oil and grease

PMA	Apply oil and grease to the compression unit	☐	☐	☐

			OK	not OK	n.a.
4.3		**Compression thickness display**			
	PMF	Thickness indicator	☐	☐	☐
4.4		**Checking miscellaneous system movements**			
4.4.1		**Checking miscellaneous system movements**			
	SIE	Switch off	☐	☐	☐
	PMF	Rotation movements	☐	☐	☐
	SIM	Blocking rotation and vertical travel	☐	☐	☐
5		**Test exposures**			
5.1		**Evaluating test values**			
	PMF	Anode acceleration	☐	☐	☐
	PMF	kV and mA	☐	☐	☐
	PMF	mAs selection	☐	☐	☐
	PMF	mAs value displayed	☐	☐	☐
	PMF	Grid voltage	☐	☐	☐
	PMF	Signal lamp	☐	☐	☐
5.2		**Testing the dose rate control**			
	PMF	Dose rate control	☐	☐	☐
5.3		**Testing the radiation field/light field**			
	PMF	Format collimation	☐	☐	☐
5.4		**Testing image quality**			
	PMF	Automatic decompression	☐	☐	☐
5.5		**Evaluating the films**			
	QIQ	Phantom exposures	☐	☐	☐
6		**Miscellaneous**			
6.1		**Blocking exposure release**			
	PMF	Blocking	☐	☐	☐
6.2		**Checks**			
	SIE	Emergency STOP	☐	☐	☐
	PMF	Indicators	☐	☐	☐
	PMP	Error memory	☐	☐	☐
	PMP	Record the error memory.	☐	☐	☐
	PMP	Delete the error memory.	☐	☐	☐
	PMF	Auxiliary voltages	☐	☐	☐
	PMF	Cassette locking	☐	☐	☐

		OK	not OK	n.a.
PMF	OPDOSE	☐	☐	☐
PMF	Stereo unit (Mammomat 3000 Nova only)	☐	☐	☐
PMA	UIs and SPEED info	☐	☐	☐

6.3 Final tests

PMF	Operating problems	☐	☐	☐
PMP	Covers	☐	☐	☐
SIE	Protective conductor test	☐	☐	☐
PMP	Cleaning/damaged paint	☐	☐	☐
QSQ	Final test exposure	☐	☐	☐